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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/645,431

08/21/2003

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EXAMINER

QAZI, SABIHA NAIM

ART UNIT

PAPER NUMBER

1612

MAIL DATE

DELIVERY MODE

02/19/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/645,431	Applicant(s) JACOBSON ET AL.	
	Examiner Sabiha Qazi	Art Unit 1612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 2-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 2-10 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Final Office Action

Claims 1-10 are pending. Claims 2-10 are withdrawn from consideration as non-elected invention. No claim is allowed at this time. Amendments are entered.

Elected species is Benzene, 1-Chloro-4-cycloprop-enylmethyl¹.

Summary of this Office Action dated 2/15/2010

1. 35 USC § 112 (1) Scope of Enablement Rejection
2. 35 USC § 112 (1) Written description Rejection
3. 35 USC § 103(a) Rejections
4. 35 USC § 102(b) Rejection
5. Response to Remarks
6. Conclusion
7. Communication

¹ This compound can also be found in HCAPLUS, Registry Number 454251-27-5.

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Applicants' arguments, filed 10/13/2009, have been fully considered.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

35 USC § 112 (1) ---Written Description Rejection

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
2. Following reasons apply:

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3. Amendments in claim 1 to disclaim the compounds disclosed by BAIRD are considered new matter and are a negative limitation to the claim.

35 USC § 112 --- First Paragraph Scope of Enablement Rejection

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for certain compounds which are exemplified in the specification and described how to make and use does not reasonably provide enablement for all the compounds as claimed, such as when Z can be a group G, wherein G is an unsubstituted or substituted; unsaturated, partially saturated, or saturated, monocyclic, bicyclic, tricyclic, or fused; 4 to 14 membered carbocyclic or heterocyclic ring system wherein; 1) when the ring system contains a 4 membered heterocyclic ring, the heterocyclic ring contains 1 heteroatom; when

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the ring system contains a 5, or more: membered heterocyclic ring or a polycyclic heterocyclic ring, the heterocyclic or polycyclic heterocyclic ring contains from 1 to 4 heteroatoms; each heteroatom is independently selected from N, O, and S; the number of substituents is from 0 to 5 and each substituent is independently selected from X.

The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. 112, first paragraph, have been described in *In re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988).

Among these factors are: (1) the nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary. When the above factors are weighed, it is the examiner's position that one skilled in the art could not practice the invention without undue experimentation.

The nature of the invention:

Presently claimed invention is drawn to a cyclopropene compound of formula as in claim 1 which contains a very large Markush group of compounds.

The predictability or unpredictability of the art

There is a lack of predictability in the art. The chemical synthesis and the use of the compounds of such a broad Markush group cannot be predicted..

The scope of the required enablement varies inversely with the degree of predictability involved, but even in unpredictable arts, a disclosure of every operable species is not required. A single embodiment may provide broad enablement in cases involving predictable factors, such as mechanical or electrical elements. *In re Vickers*, 141 F.2d 522, 526-27, 61 USPQ 122, 127 (CCPA 1944); *In re Cook*, 439 F.2d 730, 734, 169 USPQ 298, 301 (CCPA 1971). However, in applications directed to inventions in arts where the results are unpredictable, the disclosure of a single species usually does not provide an adequate basis to support generic claims. *In re Soll*, 97 F.2d 623, 624, 38 USPQ 189, 191 (CCPA 1938). In cases involving unpredictable factors, such as most chemical reactions and physiological activity, more may be required. *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970) (contrasting mechanical and electrical elements with chemical reactions and physiological activity). See also *In re Wright*, 999 F.2d

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1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993); *In re Vaeck*, 947 F.2d 488, 496, 20 USPQ2d 1438, 1445 (Fed. Cir. 1991). This is because it is not obvious from the disclosure of one species, what other species will work. See MPEP 2164.03.

The breadth of the claims

The claims are broad. The Applicants are claiming a broad genus of the compound, which includes thousands of cyclopropene compounds. In *re Fisher*, 427 F.2d 833, 166 USPQ 18 (CCPA 1970) (contrasting mechanical and electrical elements with chemical reactions and physiological activity). See also *In re Wright*, 999 F.2d 1557, 27 USPQ2d 1510 (Fed. Cir. 1993); *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In *re Dreshfield*, 110 F.2d 235, 45 USPQ 36 (CCPA 1940), gives this general rule: "It is well settled that in cases involving chemicals and chemical compounds, which differ radically in their properties it must appear in an applicant's specification either by the enumeration of a sufficient number of the members of a group or by other appropriate language, that the chemicals or chemical combinations included in the claims are capable of accomplishing the desired result."

The amount of direction or guidance presented

There is no guidance or direction presented to enable one skilled in the art to make and use of any one of the thousands of cyclopropene compounds including large number of heterocyclic groups as claimed. such as when Z can be a group G, wherein G is an unsubstituted or substituted; unsaturated, partially saturated, or saturated, monocyclic, bicyclic, tricyclic, or fused; 4 to 14 membered carbocyclic or heterocyclic ring system wherein; 1) when the ring system contains a 4 membered heterocyclic ring, the heterocyclic ring contains 1 heteroatom; when the ring system contains a 5, or more: membered heterocyclic ring or a polycyclic heterocyclic ring, the heterocyclic or polycyclic heterocyclic ring contains from 1 to 4 heteroatoms; each heteroatom is independently selected from N, O, and S; the number of substituents is from 0 to 5 and each substituent is independently selected from X.

There is no guidance in the specification how to make and use the invention of the compounds of formula (i). Even when similar starting materials are used under the same conditions the products obtained are different.

As stated in the preface to a recent treatise:

“Most non-chemists would probably be horrified if they were to learn how many attempted syntheses fail, and how inefficient research

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chemists are. The ratio of successful to unsuccessful chemical experiments in a normal research laboratory is far below unity, and synthetic research chemists, in the same way as most scientists, spend most of their time working out what went wrong, and why. Despite the many pitfalls lurking in organic synthesis, most organic chemistry textbooks and research articles do give the impression that organic reactions just proceed smoothly and that the total synthesis of complex natural products, for instance, is maybe a labor- intensive but otherwise undemanding task. In fact, most syntheses of structurally complex natural products are the result of several years of hard work by a team of chemists, with almost every step requiring careful optimization. The final synthesis usually looks quite different from that originally planned, because of unexpected difficulties encountered in the initially chosen synthetic sequence. Only the seasoned practitioner who has experienced for himself the many failures and frustrations which the development (sometimes even the repetition) of a synthesis usually implies will be able to appraise such work..... Chemists tend not to publish negative results, because these are, as opposed to positive results, never definite (and far too

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copious)”. Dorwald F. A. Side Reactions in Organic Synthesis, 2005, Wiley: VCH, Weinheim pg. IX of Preface (reference enclosed).

Thus synthesis of these compounds of the cyclopropene compounds is unpredictable for the reasons cited above.

The amount of direction provided by the inventor: The inventor provides very little direction in the instant specification. Only limited substituents on the compounds are made and disclosed. The availability of the starting material that is needed to prepare the invention as claimed is also at issue here. As per MPEP 2164.01 (b): A key issue that can arise when determining whether the specification is enabling is whether the starting materials or apparatus necessary to make the invention are available. The Court in In re Ghiron, 442 F.2d 985,991,169 USPQ 723,727 (CCPA 1971), made clear that if the practice of a method requires a particular apparatus, the application must provide a sufficient disclosure of the apparatus if the apparatus is not readily available. The same can be said if certain chemicals are required to make a compound or practice a chemical process. In re Howarth, 654 F.2d 103, 105,210 USPQ 689, 691 (CCPA 1981). There are no starting materials provided with respect to the various substituents.

The presence or absence of working examples

There are no examples presented to enable one skilled in the art to make any one of the thousands of cyclopropene compounds which includes heterocyclic groups as claimed. For example when Z can be a group G, wherein G is an unsubstituted or substituted; unsaturated, partially saturated, or saturated, monocyclic, bicyclic, tricyclic, or fused; 4 to 14 membered carbocyclic or heterocyclic ring system wherein; 1) when the ring system contains a 4 membered heterocyclic ring, the heterocyclic ring contains 1 heteroatom; when the ring system contains a 5, or more: membered heterocyclic ring or a polycyclic heterocyclic ring, the heterocyclic or polycyclic heterocyclic ring contains from 1 to 4 heteroatoms; each heteroatom is independently selected from N, O, and S; the number of substituents is from 0 to 5 and each substituent is independently selected from X.

A disclosure should contain representative examples, which provide reasonable assurance to one skilled in the art that the compounds fall within the scope of a claim will possess the alleged activity. See *In re Riat et al.* (CCPA

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1964) 327 F2d 685, 140 USPQ 471; In re Barr et al. (CCPA 1971) 444 F 2d 349, 151 USPQ 724.

The quantity of experimentation necessary

Since there is no guidance and/or direction provided by the Applicants for the wide variety of the compounds and their preparation and method of use, one skilled in the art would have to go through undue experimentation to make and/or use the instant invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1 is rejected under 35 U.S.C. 103 (a) as being unpatentable over SISLER, E, (US Patent 6,194,350 and US 6,017,849), DALY et al., US Patent 6,017,849, MINKIN (1997, IDS Reference). All the reference cited teach cyclopropene derivatives and methods of blocking ethylene receptors in plants which embraces presently claimed invention.

SISLER US '350 teaches methods of inhibiting an ethylene response in a plant. According to the present invention, one such method comprises applying to the plant an effective ethylene response-inhibiting amount of a cyclopropene derivative or a composition thereof described. Long-chain cyclopropene derivatives are particularly preferred. The reference teaches a method of blocking ethylene receptors in plants by applying to the plants an effective ethylene receptor-blocking amount of a cyclopropene derivative or a composition thereof. The reference further teaches a method of inhibiting abscission in a plant, comprising applying to the plant an effective abscission-inhibiting amount of a cyclopropene derivative or a composition thereof. The reference further teaches a method of prolonging the life of a cut flower, comprising applying to the cut flower an effective life-prolonging amount of a cyclopropene derivative or a composition thereof. The reference also teaches the use of a cyclopropene derivative for the preparation of an agricultural composition for carrying out any of

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the methods described above. See the entire document especially lines 22-59, col. 2, Table A in column 6, Table 1 and Table 2 in column 7.

SISLER US '549 teaches extensive substitution on cyclopropene ring use for blocking the ethylene response in plants (columns 2 and 3).

DALY, James teaches substituted cyclopropene compounds which are useful for the ethylene response in plants wherein up to four different R groups may be substituted on the cyclopropene ring. The R group may further be substituted (see column 5 and 6). The cyclopropene and its derivatives are made by reacting, in an inert environment, a metal amide salt, such as lithium amide salt, sodium amide salt, potassium amide salt, lithium diisopropylamide salt, sodium diisopropylamide salt or other metal amide salts, and a halogenated carbene, such as 3-chloro-3-methyl-2-methylpropene, 3-bromo-3-methyl-2-methylpropene, 3-chloro-2-methylpropene, 3-bromo-2-methylpropene or some other halogenated carbene. Methylcyclopropene is made under the same conditions with the same metal amide salts discussed above by reacting them with a halogenated methylpropene. The preferred halogenated methyl propenes are 3-chloro-2-methylpropene and 3-bromo-2-methylpropene. These halogenated methyl propenes lead to a high purity product for the intended use and are readily available.

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The reference teaches the regulation of plant physiology, in particular to methods for inhibiting the ethylene response in plants or plant products, and has three embodiments. The first embodiment relates to methods of minimizing impurities capable of reversibly binding to plant ethylene receptor sites during the synthesis of cyclopropene and its derivatives such as methylcyclopropene, thereby avoiding the negative effects these impurities have on plants treated with cyclopropene and its derivatives. The second embodiment relates to complexes formed from molecular encapsulation agents such as cyclodextrin, and cyclopropene and its derivatives such as methylcyclopropene, in addition to cyclopentadiene and diazocyclopentadiene and their derivatives, thereby providing a convenient means for storing and transporting these compounds capable of inhibiting the ethylene response in plants, which are reactive gases and highly unstable because of oxidation and other potential reactions. The third embodiment relates to convenient methods of delivering to plants these compounds capable of inhibiting the ethylene response in the plants in order to extend their shelf life. See the entire document especially abstract.

MINKIN teaches synthesis of cyclopropene compounds, see the entire document especially compound 2b in scheme 1 on page 239, compound 2b and scheme 2 on page 247 compounds 13a, 13b, 13c and 13d.

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Instant claims differ from the reference in generic scope. The compound are generically taught by the prior art.

The instant claimed cyclopropene compounds would have been obvious because one skilled in the art would have been motivated to prepare compounds embraced by the genus of the above cited references with the expectation of obtaining additional beneficial compounds. The instant claimed compounds would have been suggested to one skilled in the art because motivation is provided for these compounds capable of **inhibiting the ethylene response** in the plants in order to **extend their shelf life**. One having ordinary skill in the art would have been motivated to select the claimed cyclopropene compounds from the genus in the reference since such compounds would have been suggested by the reference as a whole.

It has been decided by the courts that a prior art disclosed genus of useful compounds is sufficient to render prima facie obvious a species falling within the genus. In re Susi, 440 F.2d 442, 445, 169 USPQ 423, 425 (CCPA 1971), followed by the Federal Circuit in Merck & Co. V. Biocraft Laboratories, 874 F.2d 804, 10 USPQ 2d 1843, 1846 (Fed. Cir. 1989).

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In the light of the forgoing discussion, the Examiner's ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

Provisos in Claim

Proviso in claim 1 has been noted. Specification [0088], [0089], [0090] and [0091] discloses the disclaimer of certain groups. Applicant should inform the examiner what prior art has been disclaimed by this proviso?

Applicant is requested to provide these references for consideration by the Examiner.

Claim Rejections - 35 USC § 103---2nd Rejection

Claim 1 is rejected under 35 U.S.C. 103 (a) as being unpatentable of BAIRD et al. (Tetrahedron Letters, IDS reference). BAIRD teaches an unusual rearrangement in the iodination of 1-allyl and 1-benzylcyclopropenes. See the entire document, all the compounds especially compounds 1, b and c.

Instant claims differ from the reference in that they are of different generic scope. It had been decided by Courts that the indiscriminate selection of "some"

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from among “many” is considered prima facie obvious. In re Lemin, 141 USPQ 814 (1964); National Distillers and Chem. Corp. V. Brenner, 156 USPQ 163.

The instant claimed compounds would have been obvious because one skilled in the art would have been motivated to prepare compounds embraced by the genus of the above cited references with the expectation of obtaining additional beneficial compounds. The instant claimed compounds would have been suggested to one skilled in the art.

One having ordinary skill in the art would have been motivated to select the claimed compounds from the genus in the reference since such compounds would have been suggested by the reference as a whole. It has been held that a prior art disclosed genus of useful compounds is sufficient to render prima facie obvious a species falling within the genus. In re Susi, 440 F.2d 442, 445, 169 USPQ 423, 425 (CCPA 1971), followed by the Federal Circuit in Merck & Co. V. Biocraft Laboratories, 874 F.2d 804, 10 USPQ 2d 1843, 1846 (Fed. Cir. 1989).

In the light of the forgoing discussion, the Examiner’s ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 102

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by BAIRD et al (IDS reference). The reference discloses 1-butyl-2-(3-methylbut-2-enyl) cyclopropene and 2-(4'-methoxybenzyl)-1- pentylcyclopropene which has been presently claimed.

Response to Remarks and data in specification

- Applicant argues that all the compounds as in claim 1 can be prepared by the methods described in the specification. Examiner respectfully disagrees because claims are too broad as has been explained in the rejections. The substituents on cyclopropene ring contain broad range of different chemical structures. It is not possible to prepare the compounds as claimed. For example just take the example of G substituents which G is an unsubstituted or ~unsubstituted; unsaturated, partially saturated, or saturated; monocyclic, bicyclic, tricyclic, or fused; 4 to 14 membered carbocyclic or heterocyclic ring system wherein;
 - 1) when the ring system contains a 4 membered heterocyclic ring, the heterocyclic ring contains 1 heteroatom;
 - 2) when the **ring system contains a 5, or more, membered heterocyclic**

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ring or a polycyclic heterocyclic ring, the heterocyclic or polycyclic heterocyclic ring contains from 1 to 4 heteroatoms; 3) each heteroatom is independently selected from N, O, and S;

4) the number of substituents is from 0 to 5 and each substituent is independently selected from X;

b) the total number of non-hydrogen atoms in each compound is **50 or less;** and e) **the total number of heteroatoms in -(L)_n-Z is from 0 to 4.**

- As is clear claims are too broad and the disclosure in the specification does not commensurate with the scope of the claims for the reasons cited in the office actions cited above.
- Double patenting rejections over KOSTANSEK and LAMOLA are withdrawn because TD are filed and approved..
- Applicant's arguments about obviousness rejection has been fully considered but was not found persuasive. Applicant argues that MINKIN does not teach presently claimed subject matter because it teaches non-analogous compounds and compounds 13 a to d are now disclaimed. Applicant regarding US '350 is that the reference does not teach any substituents which will lead to cyclopropene with ethylene inhibition activity. Similarly arguments have been made about US 849. "One cannot

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show nonobviousness by attacking references individually where the rejections are based on combinations of references.” In re Keller, 642 F.2d 413, 208 SPQ 871 (CCPA 1981); In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). See MPEP 2145. The rejection is maintained on the combined teachings of the references.

- When a valid case of prima facie obviousness has been established, the burden shifts to applicant to demonstrate that a claimed functional property is applicable to the claim in its broad scope: In re Greenfield, 197 USPQ 227, 229 (CCPA 1978). (Holding that despite the fact that the rejection was one of obviousness and not anticipation, the burden was nevertheless on applicant to provide factual verification of the alleged functional property).
- Applicant is again informed that the database search on STN picked more than 800 references as a result of the search on claim 1.
- The STN search displayed 275 hits in CAPLUS. Claims are very broad and it not possible to search completely the claimed subject matter as in claim 1. Applicant may consider limiting the claims to reasonable genus.
- In order to be eligible for rejoinder, a claim to a nonelected invention must depend from or otherwise require all the limitations of an allowable claim. A withdrawn claim that does not require all the limitations of an allowable

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claim will not be rejoined. Furthermore, where restriction was required between a product and a process of making and/or using the product, and the product invention was elected and subsequently found allowable, all claims to a nonelected process invention must depend from or otherwise require all the limitations of an allowable claim for the claims directed to that process invention to be eligible for rejoinder. See MPEP § 821.04(b).

Until elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claim that are not commensurate in scope with an allowed product will not be rejoined. See “Guidance on Treatment of Product and process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103 (b),” 1184 O.G. 86 (March 26, 1996).

In order to retain the right to rejoinder, applicant is advised that the claims to the nonelected invention(s) should be amended during prosecution to require the limitations of the elected invention. Failure to do so may result in a loss of the right to rejoinder. Rejoined claims must be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112.

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See MPEP § 804.01.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sabiha Qazi whose telephone number is (571) 272-0622. The examiner can normally be reached on any business day except Wednesday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krass Frederick can be reached on (571) 272-0580. The

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fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sabiha Qazi/

Primary Examiner, Art Unit 1612

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